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COMMUNICABLE DISEASE CENTER

# Morbidity and Mortality

Vol. 15, No. 5

WEEKLY REPORT

Week Ending February 5, 1966

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE — PUBLIC HEALTH SERVICE

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## MALARIA – CURRENT TRENDS

Through February 7, 1966, a total of 20 case reports of malaria with onset in January 1966, had been received by the Communicable Disease Center. All cases were imported. Seventeen of the cases occurred in military personnel, and 15 of these originated in South Viet Nam. The species diagnosis in 14 of the 15 cases from South Viet Nam was *Plasmodium falciparum; P. malariae* was the species in the 15th case. The remaining 2 cases were infected in Panama and Thailand, and the species was *P. vivax* in both instances. One of the 20 military patients infected in Viet Nam developed falciparum malaria after discharge from the service. Each of the three civilian patients contracted his disease in West Africa. This group included a ship's captain and a Peace Corps worker.

Additional case reports have brought the 1965 total to 130 cases (MMWR, Vol. 15, No. 4). Ninety percent of these additional cases had onset dates within the fourth quarter of 1965; these cases reflect the increasing

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### CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

(Cumulative totals include revised and delayed reports through previous weeks)

| DISEASE | 5th WEEK ENDED FEBRUARY 5, 1966 | 5th WEEK ENDED FEBRUARY 6, 1965 | MEDIAN 1961–1965 | CUMULATIVE, FIRST 5 WEEKS 1966 | CUMULATIVE, FIRST 5 WEEKS 1965 | CUMULATIVE, FIRST 5 WEEKS MEDIAN 1961–1965 |
|---|---|---|---|---|---|---|
| Aseptic meningitis | 20 | 17 | 19 | 128 | 148 | 130 |
| Brucellosis | 2 | – | 4 | 16 | 19 | 23 |
| Diphtheria | 2 | 2 | 9 | 12 | 15 | 31 |
| Encephalitis, primary: | | | | | | |
| Arthropod-borne & unspecified | 24 | 24 | - - - | 113 | 152 | - - - |
| Encephalitis, post-infectious | 14 | 16 | - - - | 64 | 67 | - - - |
| Hepatitis, serum | 26 | 918 | 1,225 | 102 | 4,021 | 5,321 |
| Hepatitis, infectious | 732 | | | 3,489 | | |
| Measles (rubeola) | 5,857 | 7,994 | 9,346 | 25,921 | 34,392 | 39,366 |
| Poliomyelitis, Total (including unspecified) | – | – | 4 | 1 | – | 19 |
| Paralytic | – | – | 3 | – | – | 16 |
| Nonparalytic | – | – | - - - | – | – | - - - |
| Meningococcal infections, Total | 62 | 63 | 64 | 356 | 316 | 269 |
| Civilian | 58 | 54 | - - - | 326 | 302 | - - - |
| Military | 4 | 9 | - - - | 30 | 14 | - - - |
| Rubella (German measles) | 1,154 | - - - | - - - | 4,173 | - - - | - - - |
| Streptococcal sore throat & Scarlet fever | 10,338 | 11,789 | 9,728 | 46,745 | 51,454 | 43,600 |
| Tetanus | 2 | 5 | - - - | 8 | 16 | - - - |
| Tularemia | 1 | 2 | - - - | 17 | 33 | - - - |
| Typhoid fever | 6 | 6 | 6 | 25 | 33 | 34 |
| Typhus, tick-borne (Rky Mt. Spotted fever) | – | 3 | - - - | 7 | 6 | - - - |
| Rabies in Animals | 62 | 90 | 73 | 340 | 475 | 301 |

### NOTIFIABLE DISEASES OF LOW FREQUENCY

| | Cum. | | Cum. |
|---|---|---|---|
| Anthrax | – | Botulism | 1 |
| Leptospirosis | 1 | Trichinosis: N.J. - 2 | 16 |
| Malaria: Va. - 1 | 26 | Rabies in Man | – |
| Psittacosis: Wisc. - 1 | 6 | Rubella, Congenital Syndrome | 1 |
| Typhus, murine | – | | |

## MALARIA – CURRENT TRENDS

*(Continued from front page)*

numbers of returned servicemen with malaria acquired in South Viet Nam.

During 1965 there has been a total of seven cases of shipboard malaria reported; of these five were *P. falciparum* and two were *P. malariae* infections. Five ships were involved and in all instances the infection was acquired in West Africa.

*(Reported by the Parasitic Disease Unit of the Surveillance Section, CDC.)*

## MEASLES – CURRENT TRENDS

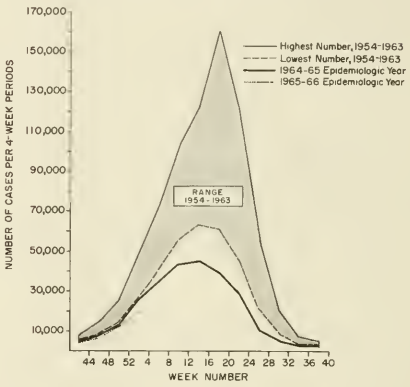
During the first 4 weeks of 1966 a total of 20,064 cases of measles was reported. The comparable total for 1965 is 26,398. Figure 1 shows the range of incidence of measles over the period 1954-1963. During this period the highest total for the first 4 weeks of the year was 48,624 and the lowest was 26,921 (Figure 1). Measles vaccine was first licensed for general use in March 1963 but it was not until 1964 that the quantity of vaccine distributed had reached a level indicative of substantial use.

STATES REPORTING MORE THAN 500 CASES OF MEASLES
Weeks 1 – 4, 1961 – 1966

| State | 1961 | 1962 | 1963 | 1964 | 1965 | 1966 |
|---|---|---|---|---|---|---|
| Wisconsin | 4,153 | 605 | 6,824 | 373 | 886 | 4,491 |
| New York (incl. NY City) | 4,117 | 2,248 | 1,127 | 2,642 | 468 | 1,945 |
| Illinois | 1,256 | 2,110 | 513 | 1,489 | 147 | 1,766 |
| Tennessee | 779 | 2,144 | 649 | 1,219 | 936 | 1,522 |
| Michigan | 1,418 | 1,127 | 3,129 | 913 | 2,304 | 1,305 |
| Texas | 899 | 4,501 | 1,003 | 1,241 | 2,073 | 1,067 |
| Pennsylvania | 2,367 | 567 | 705 | 951 | 331 | 985 |
| W. Virginia | 429 | 880 | 1,802 | 833 | 2,818 | 983 |
| Kentucky | 1,634 | 496 | 455 | 1,703 | 84 | 830 |
| California | 1,818 | 1,630 | 844 | 1,417 | 808 | 667 |

*(Reported by the Childhood Virus Disease Unit, CDC.)*

MEASLES REPORTED BY FOUR-WEEK PERIODS-UNITED STATES
EPIDEMIOLOGIC YEARS 1964-65 AND 1965-66
COMPARED WITH 10-YEAR PERIOD, 1954-1963




## INTERNATIONAL NOTES

### MERCURY POISONING IN GUATEMALA

An outbreak of central nervous system illness involving 14 cases, with 8 deaths at the time of the first report, occurred in the western highlands of Guatemala in the region around Quetzaltenango in the summer of 1965. The cases had developed during the period July to September 1965 in Indian families of a predominantly farming population living in scattered groups in a remote mountainous area. The crops grown include wheat, corn and potatoes, while livestock consists of chickens, pigs and a few horses and cattle. Corn is the main and preferred staple. Water comes from unprotected wells or from shallow streams and there are virtually no sanitary facilities. The illness was at first thought to be an arthropod-borne encephalitis and, early in September, assistance was sought from the Pan American Health Organization by the Guatemalan Ministry of Health. PAHO arranged for three investigators to visit the area affected.

During the investigation, interviews with local health officials, physicians, affected families and their neighbors and a review of hospital records brought to light an additional 31 cases with 12 deaths making a total of 45 cases of CNS illness causing 20 deaths for the whole outbreak. All had a strikingly similar clinical picture.

Table 1
INCIDENCE OF CNS ILLNESS AND DEATHS IN WESTERN GUATEMALA
July – October, 1965

| Village Community | Population | Number Cases | Case per 1000 Inhabitants | Number Deaths | Deaths per 1000 Inhabitants | Death per case Ratio (%) |
|---|---|---|---|---|---|---|
| Siguilá | 500 | 1 | 2.0 | 1 | 2.0 | 100 |
| Panorama | 400 | 15 | 37.5 | 4 | 10.0 | 26 |
| Centro | 269 | 8 | 29.7 | 7 | 26.0 | 87 |
| La Unión | 200 | 2 | 10.0 | – | – – | – – |
| Palomora | – – – | 4 | . . . . . | 2 | – – | – – |
| San José | 1,722 | 15 | 8.7 | 6 | 3.5 | 40 |
| Total | 3,091 | 45 | 14.5 | 20 | 6.5 | 44 |

The illness began with weakness in the legs which sometimes progressed to spastic paralysis with hyperflexion and a positive Babinski; in some instances the arms were also involved. The lesions were symmetrical without loss of sensory or sphincter function. Neither fever nor malaise was a prominent symptom unless a pulmonary complication developed. The involvement of the legs was almost invariably followed in 4 to 7 days by impairment of vision, usually progressing to total blindness. Once established, there was no regression in either the paralyses or the visual impairment. In fatal cases there was a period of impaired consciousness merging into coma before death.

All patients were of poor nutritional status. The sexes were equally affected and the age distribution ranged from 2 to 55 years with over half the cases being under 10 years of age. The duration of illness varied and most cases had difficulty in walking and impaired vision for 1 to 4 weeks before coming to the hospital; patients who died had remained in the hospital for periods ranging from 1 week to 1 year before death.

The weeks of onset of 43 of the 45 cases occurring in 1965, or of their admission to the hospital, ranged from July 11 to September 19, 1965. There had been four cases in 1964 and one in 1963, all of which occurred during the same season of the year as the 1965 cases. Thirty-eight of the 45 cases occurred in three villages in the wheat-growing area; there was a high incidence within given families, frequently affecting children under 10 but never those who were breast feeding (Table 1). Both the clinical and epidemiological evidence suggested a toxic rather than an infectious origin.

Inquiry revealed that the families concerned participated in a wheat co-operative whereby they received each year, in May, a certain quantity of wheat seed which was treated with the fungicide methyl mercury dicyandiamide ("Panogen 15"). The farmers were expected to return, to the co-operative organization at the end of the harvest, an amount of wheat equal to the quantity of treated seed given to them the previous spring. They had been warned not to eat the treated seed.

Several farmers' families had not heeded this warning and had ground the panogen-treated wheat to make tortillas. The distribution of illness among the members of the families who admitted eating the treated wheat was uneven. In one instance the first sign of illness in a family using the wheat appeared one week after it was eaten; in another it was 3 weeks later that the first symptoms appeared. Certain other families who had eaten the treated wheat suffered no symptoms at all, presumably due to dilution of the meal from the treated wheat with corn meal, or with wheat flour made from untreated wheat.

Specimens of kidney, liver, spleen and brain obtained from fatal cases of the illness in Guatemala have been examined in the CDC Toxicology Laboratory and have yielded amounts of alkyl mercury (9 to 20 ppm of Hg) consistent with fatal mercury poisoning. Table 2 compares the Guatemala findings with those of episodes of fatal mercury poisoning in other countries. Examination of a specimen of the treated seed contained 17 ppm expressed in metallic mercury.

Table 2
CNS ILLNESS IN GUATEMALA
Comparative Results of Tissue Content
Estimations of Alkyl Mercury in Fatal Poisoning

| Specimen | Guatemala 1965 in ppm | Other Countries Range in ppm |
|---|---|---|
| Kidney | 18 | 3 to 51 |
| Liver | 20 | 15 to 39 |
| Spleen | 9 | 4.5* |
| Brain | 15 | 3 to 48 |

*One estimation only.

*(Reported by the Department of Public Health, Guatemala Ministry of Health; The Pan American Health Organization, Zone III; and an EIS Officer.)*

**Reference:** Bidstrup, P.L. (1964) Toxicity of Mercury and Its Compounds, pp 74–87. Elsevier Publishing Company, New York.

## CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
## FOR WEEKS ENDED
## FEBRUARY 5, 1966 AND FEBRUARY 6, 1965 (5th WEEK)

| AREA | ASEPTIC MENINGITIS | | BRUCELLOSIS | ENCEPHALITIS | | | DIPHTHERIA | | HEPATITIS | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Primary including unsp. cases | | Post-Infectious | | | Serum | Infectious | Both Types |
| | 1966 | 1965 | 1966 | 1966 | 1965 | 1966 | 1966 | 1965 | 1966 | 1966 | 1965 |
| UNITED STATES... | 20 | 17 | 2 | 24 | 24 | 14 | 2 | 2 | 26 | 732 | 918 |
| NEW ENGLAND..... | - | - | - | - | 2 | - | - | - | 1 | 20 | 64 |
| Maine..... | - | - | - | - | - | - | - | - | - | 4 | 15 |
| New Hampshire..... | - | - | - | - | - | - | - | - | - | - | 5 |
| Vermont..... | - | - | - | - | - | - | - | - | - | 1 | 9 |
| Massachusetts..... | - | - | - | - | 1 | - | - | - | 1 | 13 | 15 |
| Rhode Island..... | - | - | - | - | - | - | - | - | - | 1 | 11 |
| Connecticut..... | - | - | - | - | 1 | - | - | - | - | 1 | 9 |
| MIDDLE ATLANTIC..... | 1 | 3 | 1 | 7 | 2 | 3 | - | - | 16 | 89 | 164 |
| New York City..... | - | 2 | 1 | 5 | 1 | - | - | - | 10 | 15 | 23 |
| New York, Up-State. | - | 1 | - | 1 | - | - | - | - | 3 | 29 | 86 |
| New Jersey..... | - | - | - | 1 | - | - | - | - | 2 | 15 | 15 |
| Pennsylvania..... | 1 | - | - | - | 1 | 3 | - | - | 1 | 30 | 40 |
| EAST NORTH CENTRAL... | 3 | 1 | - | 5 | 9 | 2 | - | - | - | 145 | 186 |
| Ohio..... | - | - | - | 3 | 2 | - | - | - | - | 45 | 58 |
| Indiana..... | 2 | - | - | - | 1 | - | - | - | - | 15 | 14 |
| Illinois..... | - | - | - | - | - | 1 | - | - | - | 30 | 55 |
| Michigan..... | - | 1 | - | 1 | 5 | 1 | - | - | - | 50 | 47 |
| Wisconsin..... | 1 | - | - | 1 | 1 | - | - | - | - | 5 | 12 |
| WEST NORTH CENTRAL... | - | 1 | - | - | 2 | 1 | - | - | 2 | 50 | 60 |
| Minnesota..... | - | - | - | - | - | 1 | - | - | 2 | 13 | 6 |
| Iowa..... | - | - | - | - | - | - | - | - | - | 21 | 29 |
| Missouri..... | - | - | - | - | - | - | - | - | - | 5 | 8 |
| North Dakota..... | - | 1 | - | - | 1 | - | - | - | - | 2 | - |
| South Dakota..... | - | - | - | - | - | - | - | - | - | - | 1 |
| Nebraska..... | - | - | - | - | - | - | - | - | - | - | 1 |
| Kansas..... | - | - | - | - | 1 | - | - | - | - | 9 | 15 |
| SOUTH ATLANTIC..... | 3 | 3 | - | 4 | 3 | 1 | 2 | - | 2 | 71 | 81 |
| Delaware..... | - | - | - | - | - | - | - | - | - | 2 | 2 |
| Maryland..... | - | - | - | - | 1 | - | - | - | - | 7 | 33 |
| Dist. of Columbia.. | - | 1 | - | - | - | - | - | - | - | - | 1 |
| Virginia..... | - | 1 | - | 3 | - | - | - | - | - | 29 | 11 |
| West Virginia..... | - | - | - | - | - | - | - | - | - | 4 | 17 |
| North Carolina..... | 1 | - | - | 1 | 1 | - | 1 | - | 1 | 9 | 9 |
| South Carolina..... | - | - | - | - | - | - | - | - | - | 2 | 2 |
| Georgia..... | - | - | - | - | - | - | - | - | - | - | - |
| Florida..... | 2 | 1 | - | - | 1 | 1 | 1 | - | 1 | 18 | 6 |
| EAST SOUTH CENTRAL... | 1 | - | - | 1 | 1 | 1 | - | 1 | - | 80 | 80 |
| Kentucky..... | 1 | - | - | - | - | - | - | - | - | 44 | 33 |
| Tennessee..... | - | - | - | 1 | 1 | 1 | - | - | - | 19 | 22 |
| Alabama..... | - | - | - | - | - | - | - | 1 | - | 7 | 16 |
| Mississippi..... | - | - | - | - | - | - | - | - | - | 10 | 9 |
| WEST SOUTH CENTRAL... | 3 | 2 | - | 1 | - | 2 | - | 1 | 2 | 58 | 84 |
| Arkansas..... | - | - | - | 1 | - | - | - | - | - | 9 | 15 |
| Louisiana..... | 1 | 1 | - | - | - | 1 | - | 1 | 2 | 9 | 12 |
| Oklahoma..... | 1 | - | - | - | - | - | - | - | - | 1 | 2 |
| Texas..... | 1 | 1 | - | - | - | 1 | - | - | - | 39 | 55 |
| MOUNTAIN..... | - | - | - | - | 1 | - | - | - | - | 51 | 39 |
| Montana..... | - | - | - | - | - | - | - | - | - | 1 | 9 |
| Idaho..... | - | - | - | - | - | - | - | - | - | 5 | 1 |
| Wyoming..... | - | - | - | - | - | - | - | - | - | - | 2 |
| Colorado..... | - | - | - | - | 1 | - | - | - | - | 7 | 11 |
| New Mexico..... | - | - | - | - | - | - | - | - | - | 23 | 4 |
| Arizona..... | - | - | - | - | - | - | - | - | - | 12 | 6 |
| Utah..... | - | - | - | - | - | - | - | - | - | 1 | 5 |
| Nevada..... | - | - | - | - | - | - | - | - | - | 2 | 1 |
| PACIFIC..... | 9 | 7 | 1 | 6 | 4 | 4 | - | - | 3 | 168 | 160 |
| Washington..... | - | - | - | - | 1 | - | - | - | - | 13 | 11 |
| Oregon..... | - | - | - | - | 1 | - | - | - | - | 24 | 10 |
| California..... | 8 | 6 | - | 6 | 2 | 4 | - | - | 3 | 130 | 122 |
| Alaska..... | - | - | - | - | - | - | - | - | - | 1 | 17 |
| Hawaii..... | 1 | 1 | 1 | - | - | - | - | - | - | - | - |
| Puerto Rico..... | - | - | - | - | - | - | - | 1 | - | 20 | 24 |

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

FEBRUARY 5, 1966 AND FEBRUARY 6, 1965 (5th WEEK) - Continued

| AREA | MEASLES (Rubeola) | | | MENINGOCOCCAL INFECTIONS, TOTAL | | | POLIOMYELITIS | | | | RUBELLA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Cumulative | | | Cumulative | | Total | | Paralytic | | |
| | 1966 | 1966 | 1965 | 1966 | 1966 | 1965 | 1966 | 1965 | 1966 | Cumulative 1966 | 1966 |
| UNITED STATES... | 5,857 | 25,921 | 34,392 | 62 | 356 | 316 | - | - | - | - | 1,154 |
| NEW ENGLAND..... | 95 | 365 | 8,860 | 1 | 26 | 18 | - | - | - | - | 193 |
| Maine..... | 8 | 39 | 1,067 | - | - | 5 | - | - | - | - | 5 |
| New Hampshire..... | 1 | 5 | 156 | - | 7 | 1 | - | - | - | - | - |
| Vermont..... | 8 | 117 | 101 | - | 1 | - | - | - | - | - | 1 |
| Massachusetts..... | 48 | 104 | 5,192 | 1 | 12 | 8 | - | - | - | - | 102 |
| Rhode Island..... | 2 | 29 | 1,027 | - | 2 | 1 | - | - | - | - | 13 |
| Connecticut..... | 28 | 71 | 1,317 | - | 4 | 3 | - | - | - | - | 72 |
| MIDDLE ATLANTIC..... | 687 | 3,919 | 1,176 | 6 | 62 | 44 | - | - | - | - | 43 |
| New York City..... | 415 | 1,964 | 138 | 1 | 14 | 10 | - | - | - | - | 27 |
| New York, Up-State. | 33 | 429 | 388 | 2 | 12 | 9 | - | - | - | - | 16 |
| New Jersey..... | 27 | 329 | 202 | 1 | 19 | 17 | - | - | - | - | - |
| Pennsylvania..... | 212 | 1,197 | 448 | 2 | 17 | 8 | - | - | - | - | - |
| EAST NORTH CENTRAL... | 2,017 | 10,393 | 5,993 | 10 | 57 | 38 | - | - | - | - | 273 |
| Ohio..... | 135 | 604 | 1,157 | 2 | 20 | 14 | - | - | - | - | - |
| Indiana..... | 58 | 403 | 266 | 1 | 5 | 4 | - | - | - | - | 47 |
| Illinois..... | 385 | 2,151 | 197 | - | 6 | 10 | - | - | - | - | 39 |
| Michigan..... | 350 | 1,655 | 3,199 | 3 | 18 | 6 | - | - | - | - | 38 |
| Wisconsin..... | 1,089 | 5,580 | 1,174 | 4 | 8 | 4 | - | - | - | - | 149 |
| WEST NORTH CENTRAL... | 273 | 983 | 2,481 | 4 | 17 | 17 | - | - | - | - | 61 |
| Minnesota..... | 64 | 408 | 51 | - | 3 | 3 | - | - | - | - | - |
| Iowa..... | 108 | 274 | 1,198 | 2 | 4 | - | - | - | - | - | 51 |
| Missouri..... | 31 | 65 | 256 | 1 | 6 | 9 | - | - | - | - | - |
| North Dakota..... | 68 | 225 | 863 | - | - | 3 | - | - | - | - | 10 |
| South Dakota..... | 1 | 2 | 23 | - | 1 | - | - | - | - | - | - |
| Nebraska..... | 1 | 9 | 90 | - | - | - | - | - | - | - | - |
| Kansas..... | NN | NN | NN | 1 | 3 | 2 | - | - | - | - | - |
| SOUTH ATLANTIC..... | 487 | 2,431 | 5,067 | 14 | 65 | 69 | - | - | - | - | 77 |
| Delaware..... | - | 35 | 74 | - | - | 2 | - | - | - | - | - |
| Maryland..... | 79 | 390 | 76 | 2 | 8 | 3 | - | - | - | - | 5 |
| Dist. of Columbia.. | 15 | 99 | 9 | - | - | 2 | - | - | - | - | - |
| Virginia..... | 65 | 186 | 721 | 2 | 5 | 11 | - | - | - | - | 14 |
| West Virginia..... | 208 | 1,191 | 3,783 | 1 | 3 | 6 | - | - | - | - | 40 |
| North Carolina..... | 3 | 35 | 88 | 4 | 13 | 13 | - | - | - | - | - |
| South Carolina..... | 22 | 115 | 40 | 3 | 13 | 5 | - | - | - | - | 1 |
| Georgia..... | 6 | 34 | 94 | 1 | 5 | 13 | - | - | - | - | - |
| Florida..... | 89 | 346 | 182 | 1 | 18 | 14 | - | - | - | - | 17 |
| EAST SOUTH CENTRAL... | 905 | 3,330 | 1,797 | 6 | 15 | 21 | - | - | - | - | 70 |
| Kentucky..... | 506 | 1,336 | 143 | 2 | 5 | 7 | - | - | - | - | 15 |
| Tennessee..... | 370 | 1,892 | 1,188 | 4 | 8 | 7 | - | - | - | - | 55 |
| Alabama..... | 11 | 41 | 332 | - | 2 | 7 | - | - | - | - | - |
| Mississippi..... | 18 | 61 | 134 | - | - | - | - | - | - | - | - |
| WEST SOUTH CENTRAL... | 533 | 1,648 | 3,053 | 10 | 33 | 40 | - | - | - | - | - |
| Arkansas..... | 1 | 23 | 40 | 2 | 4 | 3 | - | - | - | - | - |
| Louisiana..... | 2 | 18 | 7 | 2 | 8 | 14 | - | - | - | - | - |
| Oklahoma..... | - | 10 | 29 | 2 | 2 | 6 | - | - | - | - | - |
| Texas..... | 530 | 1,597 | 2,977 | 4 | 19 | 17 | - | - | - | - | - |
| MOUNTAIN..... | 285 | 1,117 | 3,000 | 1 | 14 | 5 | - | - | - | - | 187 |
| Montana..... | 35 | 233 | 1,117 | 1 | 2 | - | - | - | - | - | 15 |
| Idaho..... | 24 | 224 | 433 | - | - | - | - | - | - | - | - |
| Wyoming..... | 7 | 19 | 91 | - | - | - | - | - | - | - | 1 |
| Colorado..... | 48 | 109 | 357 | - | 10 | 1 | - | - | - | - | 9 |
| New Mexico..... | - | 4 | 60 | - | 1 | - | - | - | - | - | - |
| Arizona..... | 161 | 488 | 73 | - | - | 2 | - | - | - | - | 162 |
| Utah..... | 10 | 36 | 863 | - | - | 1 | - | - | - | - | - |
| Nevada..... | - | 4 | 6 | - | 1 | 1 | - | - | - | - | - |
| PACIFIC..... | 575 | 1,735 | 2,965 | 10 | 67 | 64 | - | - | - | - | 250 |
| Washington..... | 188 | 534 | 832 | - | 5 | - | - | - | - | - | 150 |
| Oregon..... | 52 | 180 | 586 | - | 3 | 3 | - | - | - | - | 44 |
| California..... | 332 | 999 | 1,206 | 9 | 49 | 60 | - | - | - | - | 46 |
| Alaska..... | 1 | 2 | 33 | 1 | 8 | 1 | - | - | - | - | 8 |
| Hawaii..... | 2 | 20 | 308 | - | 2 | - | - | - | - | - | 2 |
| Puerto Rico..... | 30 | 278 | 127 | - | - | - | - | - | - | - | 1 |

## CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

FEBRUARY 5, 1966 AND FEBRUARY 6, 1965 (5th WEEK) - Continued

| AREA | STREPTOCOCCAL SORE THROAT & SCARLET FEVER | TETANUS | | TULAREMIA | | TYPHOID | | TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted) | | RABIES IN ANIMALS | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1966 | 1966 | Cum. 1966 | 1966 | Cum. 1966 | 1966 | Cum. 1966 | 1966 | Cum. 1966 | 1966 | Cum. 1966 |
| UNITED STATES... | 10,338 | 2 | 8 | 1 | 17 | 6 | 25 | - | 7 | 62 | 340 |
| NEW ENGLAND..... | 1,931 | - | 1 | - | - | - | 1 | - | - | - | 3 |
| Maine..... | 250 | - | - | - | - | - | - | - | - | - | - |
| New Hampshire..... | 35 | - | - | - | - | - | - | - | - | - | - |
| Vermont..... | 77 | - | - | - | - | - | - | - | - | - | 3 |
| Massachusetts..... | 313 | - | 1 | - | - | - | - | - | - | - | - |
| Rhode Island..... | 75 | - | - | - | - | - | - | - | - | - | - |
| Connecticut..... | 1,181 | - | - | - | - | - | 1 | - | - | - | - |
| MIDDLE ATLANTIC..... | 275 | - | 1 | - | - | 2 | 8 | - | 1 | 4 | 28 |
| New York City..... | 26 | - | 1 | - | - | - | 4 | - | - | - | - |
| New York, Up-State. | 249 | - | - | - | - | 1 | 2 | - | - | 3 | 26 |
| New Jersey..... | - | - | - | - | - | 1 | 2 | - | - | - | - |
| Pennsylvania..... | - | - | - | - | - | - | - | - | 1 | 1 | 2 |
| EAST NORTH CENTRAL.. | 983 | - | - | - | 3 | 1 | 6 | - | - | 4 | 39 |
| Ohio..... | 91 | - | - | - | 2 | - | 3 | - | - | 1 | 25 |
| Indiana..... | 169 | - | - | - | 1 | - | 1 | - | - | - | 4 |
| Illinois..... | 121 | - | - | - | - | - | - | - | - | - | 2 |
| Michigan..... | 405 | - | - | - | - | 1 | 1 | - | - | 2 | 4 |
| Wisconsin..... | 197 | - | - | - | - | - | 1 | - | - | 1 | 4 |
| WEST NORTH CENTRAL.. | 455 | - | - | - | 2 | - | - | - | 1 | 17 | 98 |
| Minnesota..... | 7 | - | - | - | - | - | - | - | - | 4 | 18 |
| Iowa..... | 126 | - | - | - | - | - | - | - | - | 2 | 18 |
| Missouri..... | 12 | - | - | - | - | - | - | - | - | 10 | 46 |
| North Dakota..... | 210 | - | - | - | - | - | - | - | - | - | 3 |
| South Dakota..... | 14 | - | - | - | - | - | - | - | - | 1 | 11 |
| Nebraska..... | 6 | - | - | - | - | - | - | - | - | - | 2 |
| Kansas..... | 80 | - | - | - | 2 | - | - | - | 1 | - | - |
| SOUTH ATLANTIC..... | 923 | 1 | 3 | - | 5 | 2 | 6 | - | 5 | 12 | 43 |
| Delaware..... | 22 | - | - | - | - | - | - | - | - | - | - |
| Maryland..... | 244 | - | - | - | - | - | - | - | - | - | - |
| Dist. of Columbia.. | 1 | - | - | - | - | - | - | - | - | - | - |
| Virginia..... | 202 | - | - | - | 2 | 2 | 3 | - | 1 | 11 | 32 |
| West Virginia..... | 197 | - | - | - | 1 | - | 1 | - | - | - | 5 |
| North Carolina..... | 14 | - | - | - | 2 | - | 1 | - | 3 | - | - |
| South Carolina..... | 49 | 1 | 1 | - | - | - | - | - | - | - | - |
| Georgia..... | 5 | - | 2 | - | - | - | - | - | 1 | - | 4 |
| Florida..... | 189 | - | - | - | - | - | 1 | - | - | 1 | 2 |
| EAST SOUTH CENTRAL... | 1,462 | - | - | - | 5 | - | 1 | - | - | 6 | 49 |
| Kentucky..... | 112 | - | - | - | 2 | - | - | - | - | - | 5 |
| Tennessee..... | 1,093 | - | - | - | 3 | - | 1 | - | - | 6 | 42 |
| Alabama..... | 95 | - | - | - | - | - | - | - | - | - | 2 |
| Mississippi..... | 162 | - | - | - | - | - | - | - | - | - | - |
| WEST SOUTH CENTRAL... | 1,001 | 1 | 1 | - | 1 | - | 1 | - | - | 16 | 63 |
| Arkansas..... | 4 | - | - | - | - | - | - | - | - | 2 | 5 |
| Louisiana..... | 2 | 1 | 1 | - | - | - | - | - | - | - | 5 |
| Oklahoma..... | 13 | - | - | - | - | - | 1 | - | - | 2 | 4 |
| Texas..... | 982 | - | - | - | 1 | - | - | - | - | 12 | 49 |
| MOUNTAIN..... | 1,505 | - | - | - | - | 1 | 2 | - | - | - | 4 |
| Montana..... | 56 | - | - | - | - | - | - | - | - | - | 1 |
| Idaho..... | 159 | - | - | - | - | - | - | - | - | - | - |
| Wyoming..... | 72 | - | - | - | - | - | - | - | - | - | - |
| Colorado..... | 625 | - | - | - | - | - | - | - | - | - | - |
| New Mexico..... | 269 | - | - | - | - | - | - | - | - | - | - |
| Arizona..... | 106 | - | - | - | - | - | 1 | - | - | - | 3 |
| Utah..... | 211 | - | - | - | - | 1 | 1 | - | - | - | - |
| Nevada..... | 7 | - | - | - | - | - | - | - | - | - | - |
| PACIFIC..... | 1,803 | - | 2 | 1 | 1 | - | - | - | - | 3 | 13 |
| Washington..... | 667 | - | - | - | - | - | - | - | - | - | - |
| Oregon..... | 61 | - | - | - | - | - | - | - | - | - | - |
| California..... | 881 | - | 2 | 1 | 1 | - | - | - | - | 3 | 13 |
| Alaska..... | 102 | - | - | - | - | - | - | - | - | - | - |
| Hawaii..... | 92 | - | - | - | - | - | - | - | - | - | - |
| Puerto Rico..... | 9 | - | - | - | - | - | - | - | - | - | - |

Week No. 5

## DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED FEBRUARY 5, 1966

(By place of occurrence and week of filing certificate. Excludes fetal deaths)

| Area | All Causes | | Pneumonia and Influenza | Under 1 year |
|---|---|---|---|---|
| | All Ages | 65 years and over | All Ages | All Causes |
| NEW ENGLAND: | 887 | 545 | 54 | 34 |
| Boston, Mass. | 284 | 164 | 6 | 8 |
| Bridgeport, Conn. | 54 | 37 | 11 | 3 |
| Cambridge, Mass. | 36 | 23 | - | 2 |
| Fall River, Mass. | 25 | 16 | 3 | - |
| Hartford, Conn. | 59 | 34 | 3 | 5 |
| Lowell, Mass. | 33 | 21 | 2 | 1 |
| Lynn, Mass. | 27 | 22 | 1 | - |
| New Bedford, Mass. | 38 | 30 | 2 | - |
| New Haven, Conn. | 73 | 36 | 1 | 4 |
| Providence, R. I. | 75 | 52 | 5 | 2 |
| Somerville, Mass. | 15 | 8 | 3 | - |
| Springfield, Mass. | 62 | 38 | 10 | 5 |
| Waterbury, Conn. | 30 | 18 | - | 2 |
| Worcester, Mass. | 76 | 46 | 7 | 2 |
| MIDDLE ATLANTIC: | 3,594 | 2,089 | 149 | 173 |
| Albany, N. Y. | 58 | 37 | - | 1 |
| Allentown, Pa. | 35 | 25 | 3 | 1 |
| Buffalo, N. Y. | 149 | 93 | 3 | 9 |
| Camden, N. J. | 48 | 22 | 1 | 4 |
| Elizabeth, N. J.* | 35 | 20 | 2 | 2 |
| Erie, Pa. | 53 | 37 | 3 | 1 |
| Jersey City, N. J. | 79 | 44 | 6 | 4 |
| Newark, N. J. | 76 | 36 | 7 | 5 |
| New York City, N. Y. | 1,867 | 1,068 | 65 | 92 |
| Paterson, N. J. | 41 | 27 | 2 | 2 |
| Philadelphia, Pa. | 551 | 303 | 24 | 30 |
| Pittsburgh, Pa. | 209 | 111 | 4 | 9 |
| Reading, Pa. | 59 | 42 | 7 | 1 |
| Rochester, N. Y. | 114 | 83 | 7 | 3 |
| Schenectady, N. Y. | 37 | 26 | - | - |
| Scranton, Pa. | 29 | 20 | 4 | 2 |
| Syracuse, N. Y. | 51 | 33 | - | 2 |
| Trenton, N. J. | 41 | 17 | 4 | 2 |
| Utica, N. Y. | 25 | 19 | 6 | - |
| Yonkers, N. Y. | 37 | 26 | 1 | 3 |
| EAST NORTH CENTRAL: | 2,731 | 1,549 | 120 | 136 |
| Akron, Ohio | 70 | 48 | - | 1 |
| Canton, Ohio | 36 | 21 | 3 | 3 |
| Chicago, Ill. | 824 | 427 | 38 | 48 |
| Cincinnati, Ohio | 137 | 82 | 3 | 6 |
| Cleveland, Ohio | 204 | 123 | 1 | 4 |
| Columbus, Ohio | 140 | 69 | - | 8 |
| Dayton, Ohio | 89 | 57 | 15 | 6 |
| Detroit, Mich. | 393 | 227 | 22 | 24 |
| Evansville, Ind. | 33 | 18 | 2 | 1 |
| Flint, Mich. | 55 | 28 | 4 | 3 |
| Fort Wayne, Ind. | 43 | 27 | 5 | 3 |
| Gary, Ind. | 17 | 6 | - | 1 |
| Grand Rapids, Mich. | 64 | 47 | 4 | - |
| Indianapolis, Ind. | 155 | 83 | 5 | 6 |
| Madison, Wis. | 45 | 23 | - | - |
| Milwaukee, Wis. | 127 | 77 | 4 | 8 |
| Peoria, Ill. | 36 | 19 | 3 | 4 |
| Rockford, Ill. | 32 | 22 | 3 | 3 |
| South Bend, Ind. | 42 | 28 | 2 | 2 |
| Toledo, Ohio | 113 | 69 | 5 | 4 |
| Youngstown, Ohio | 76 | 48 | 1 | 1 |
| WEST NORTH CENTRAL: | 906 | 573 | 42 | 39 |
| Des Moines, Iowa | 63 | 45 | 4 | - |
| Duluth, Minn. | 27 | 15 | - | 1 |
| Kansas City, Kans. | 39 | 24 | 5 | 3 |
| Kansas City, Mo. | 148 | 87 | 6 | 1 |
| Lincoln, Nebr. | 25 | 20 | 4 | 1 |
| Minneapolis, Minn. | 147 | 91 | 1 | 10 |
| Omaha, Nebr. | 73 | 39 | - | 6 |
| St. Louis, Mo. | 267 | 174 | 10 | 14 |
| St. Paul, Minn. | 83 | 60 | 2 | 1 |
| Wichita, Kans. | 34 | 18 | 10 | 2 |
| SOUTH ATLANTIC: | 1,141 | 644 | 54 | 47 |
| Atlanta, Ga. | 145 | 67 | 8 | 9 |
| Baltimore, Md. | 200 | 109 | 4 | 7 |
| Charlotte, N. C. | 59 | 27 | 3 | 2 |
| Jacksonville, Fla. | 63 | 38 | 4 | 4 |
| Miami, Fla. | 100 | 55 | 1 | 3 |
| Norfolk, Va. | 67 | 31 | 5 | 7 |
| Richmond, Va. | 73 | 46 | 4 | 1 |
| Savannah, Ga. | 34 | 14 | 2 | 1 |
| St. Petersburg, Fla. | 103 | 91 | 5 | - |
| Tampa, Fla* | 75 | 46 | 8 | 3 |
| Washington, D. C. | 172 | 95 | 6 | 4 |
| Wilmington, Del. | 50 | 25 | 4 | 6 |
| EAST SOUTH CENTRAL: | 588 | 306 | 22 | 41 |
| Birmingham, Ala. | 84 | 44 | 3 | 3 |
| Chattanooga, Tenn. | 56 | 24 | 3 | 4 |
| Knoxville, Tenn. | 29 | 19 | - | 2 |
| Louisville, Ky. | 89 | 55 | 5 | 7 |
| Memphis, Tenn. | 137 | 59 | 4 | 9 |
| Mobile, Ala. | 49 | 24 | 1 | 3 |
| Montgomery, Ala. | 40 | 21 | 5 | 4 |
| Nashville, Tenn. | 104 | 60 | 1 | 9 |
| WEST SOUTH CENTRAL: | 1,288 | 718 | 58 | 84 |
| Austin, Tex. | 35 | 27 | 5 | - |
| Baton Rouge, La. | 32 | 23 | - | 2 |
| Corpus Christi, Tex. | 33 | 20 | 1 | 2 |
| Dallas, Tex. | 157 | 90 | 2 | 8 |
| El Paso, Tex. | 47 | 26 | 7 | 2 |
| Fort Worth, Tex. | 84 | 48 | 3 | 9 |
| Houston, Tex. | 236 | 116 | 7 | 16 |
| Little Rock, Ark. | 51 | 22 | 2 | 8 |
| New Orleans, La. | 242 | 119 | 9 | 17 |
| Oklahoma City, Okla. | 95 | 50 | 2 | 6 |
| San Antonio, Tex. | 146 | 96 | 3 | 8 |
| Shreveport, La. | 65 | 36 | 11 | 4 |
| Tulsa, Okla. | 65 | 45 | 6 | 2 |
| MOUNTAIN: | 432 | 251 | 33 | 28 |
| Albuquerque, N. Mex. | 29 | 9 | 7 | 5 |
| Colorado Springs, Colo. | 26 | 13 | 5 | 1 |
| Denver, Colo. | 115 | 66 | 8 | 9 |
| Ogden, Utah* | 20 | 12 | 3 | 1 |
| Phoenix, Ariz. | 104 | 62 | 5 | 5 |
| Pueblo, Colo. | 23 | 17 | 3 | 1 |
| Salt Lake City, Utah | 53 | 33 | 1 | 1 |
| Tucson, Ariz. | 62 | 39 | 1 | 5 |
| PACIFIC: | 1,593 | 946 | 44 | 84 |
| Berkeley, Calif. | 21 | 16 | - | - |
| Fresno, Calif. | 43 | 19 | 1 | 3 |
| Glendale, Calif. | 25 | 18 | 1 | - |
| Honolulu, Hawaii | 54 | 27 | - | 7 |
| Long Beach, Calif. | 78 | 43 | 3 | 4 |
| Los Angeles, Calif. | 430 | 248 | 12 | 14 |
| Oakland, Calif. | 96 | 57 | 2 | 2 |
| Pasadena, Calif.* | 37 | 26 | - | 1 |
| Portland, Oreg. | 115 | 69 | 1 | 11 |
| Sacramento, Calif. | 111 | 74 | 4 | 11 |
| San Diego, Calif. | 93 | 63 | 1 | 4 |
| San Francisco, Calif. | 203 | 112 | 9 | 7 |
| San Jose, Calif. | 39 | 21 | 1 | 5 |
| Seattle, Wash. | 169 | 106 | 6 | 10 |
| Spokane, Wash. | 44 | 26 | 1 | 3 |
| Tacoma, Wash. | 35 | 21 | 2 | 2 |
| Total | 13,160 | 7,621 | 576 | 666 |

*Estimate - based on average percent of divisional total.

Cumulative Totals
including reported corrections for previous weeks

| | |
|---|---|
| All Causes, All Ages | 66,862 |
| All Causes, Age 65 and over | 38,646 |
| Pneumonia and Influenza, All Ages | 3,073 |
| All Causes, Under 1 Year of Age | 3,462 |

## QUARANTINE MEASURES

*Immunization Information for International Travel*
*1965-66 edition Public Health Service Publication No. 384*

The following change should be made in the list of Yellow Fever Vaccination Centers in Section 6:

Page 72

| | |
|---|---|
| **Delete** | |
| City | Anchorage, Alaska |
| Center | Health Center, Greater Anchorage<br>Health District, 217 E. St.,<br>Telephone: BR 6-3351 |
| Clinic Hours | Mon. – Fri. 8-11:30 a.m.<br>1-4 p.m. |
| Fee | Yes |
| **Add** | |
| City | Anchorage, Alaska |
| Center | Greater Anchorage Area<br>Borough-Health Department<br>217 E. Street<br>Telephone: 272-6467 |
| Clinic Hours | Mon. –Fri. 8-11:30 a.m.<br>1-4 p.m. |
| Fee | Yes |

## EPIDEMIOLOGIC NOTES AND REPORTS

### TYPE B INFLUENZA – Massachusetts

Infection with type B influenza virus has been confirmed, in representative cases, in outbreaks of febrile illness occurring in eastern Massachusetts (MMWR, Vol. 15, No. 3). Recovery of two strains of type B virus and identification of greater than four-fold increases in complement fixing (CF) antibody titers in three additional instances has been reported. Preliminary tests show these type B influenza virus strains to be similar to those recovered in the United States in 1964-65.

*(Reported by Mrs. Joan Daniels, Chief, Virology Laboratory, Institute of Laboratories, Massachusetts Department of Public Health; and the Respirovirus Unit, CDC.)*

THE MORBIDITY AND MORTALITY WEEKLY REPORT, WITH A CIRCULATION OF 15,300, IS PUBLISHED AT THE COMMUNICABLE DISEASE CENTER, ATLANTA, GEORGIA.

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ACTING CHIEF, STATISTICS SECTION — IDA L. SHERMAN, M.S.

EDITOR: MMWR — D. J. M. MACKENZIE, M.B., F.R.C.P.E.

IN ADDITION TO THE ESTABLISHED PROCEDURES FOR REPORTING MORBIDITY AND MORTALITY, THE COMMUNICABLE DISEASE CENTER WELCOMES ACCOUNTS OF INTERESTING OUTBREAKS OR CASE INVESTIGATIONS WHICH ARE OF CURRENT INTEREST TO HEALTH OFFICIALS AND WHICH ARE DIRECTLY RELATED TO THE CONTROL OF COMMUNICABLE DISEASES. SUCH COMMUNICATIONS SHOULD BE ADDRESSED TO:

THE EDITOR
MORBIDITY AND MORTALITY WEEKLY REPORT
COMMUNICABLE DISEASE CENTER
ATLANTA, GEORGIA 30333

NOTE: THE DATA IN THIS REPORT ARE PROVISIONAL AND ARE BASED ON WEEKLY TELEGRAMS TO THE CDC BY THE INDIVIDUAL STATE HEALTH DEPARTMENTS. THE REPORTING WEEK CONCLUDES ON SATURDAY; COMPILED DATA ON A NATIONAL BASIS ARE RELEASED ON THE SUCCEEDING FRIDAY.

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
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